

BRASS

**BRIGHAM AND WOMEN'S
RHEUMATOID ARTHRITIS
SEQUENTIAL STUDY**

BRASS Registry Enrollment Began in March 2003

- Prospective follow-up for 15 years
- 1468 recruited to date
- 30 rheumatologists have contributed patients
- > 90% approached will sign up
- 6 month follow-up (86%)
- 1 year follow-up (>80%)
- 680 still enrolled

Original Scientific Aims

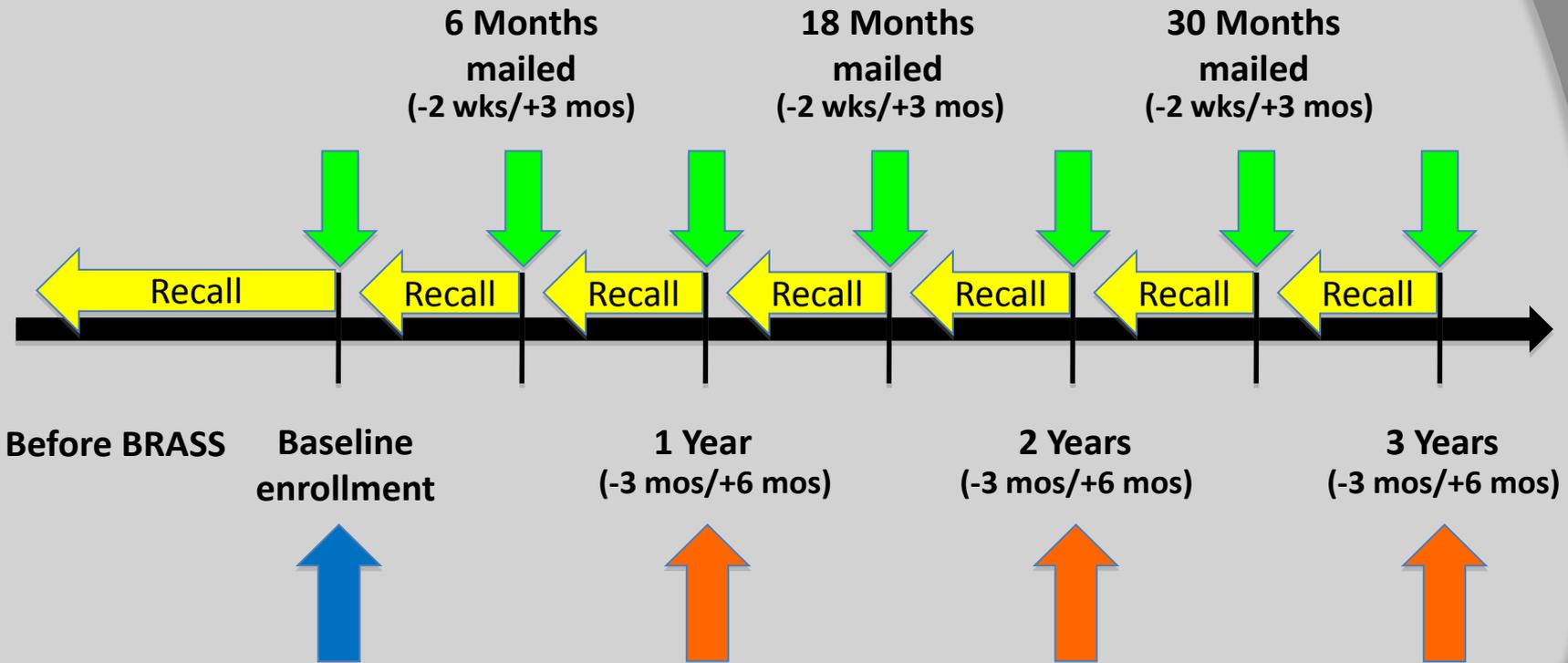
- Identify markers of disease progression
- Monitor markers for drug response
- Examine pathogenic mechanisms via hypothesis driven experiments
- Broaden our understanding of the epidemiology of RA

Structure of the BRASS Registry

Registry	Structure	Data/Specimens Collected
BRASS	1461 RA patient (15% new onset RA)	Physician data (annually) Patient reported data (6 months) DNA (twice) RNA (annually) Serum (annually) Plasma (annually)

BRASS Protocol

Patient Data Collection Occurs Every 6 months



Physician Domains and Labs Measured at Baseline and Yearly

If annual visit and semi-annual mailing will overlap (with-in 2 months), in-person visit takes priority and mailing will not be done.

Hand X-rays done at baseline, 2yr, 5yr, 7yr, 10yr, 12yr, and 15yr (± 3 months)

Data Collection (over 2000 variables)

- Demographics
- General Health
- Current Medications
- Past Medications
- Validated Scales

MDHAQ, SF-12, MHI-5, PHQ-9, EQ-5D, RADAI,
Arthritis Self-Efficacy, MOS Sleep Scale, Widespread
Pain, Dyspnea Questionnaire

Brass Physician Domains

Physician Domains	Baseline	Annual
<i>Inclusion Criteria</i>	✓	
Health & Symptoms		
Morning Stiffness	✓	✓
VAS	✓	✓
Infection/Oppportunistic Infections	✓	✓
Extra-Articular Manifestations	✓	✓
Co-morbidities/drug toxicities	✓	✓
28 Joint Count	✓	✓
Medication Changes		
Start	✓	✓
Stop/reason	✓	✓
Change/reason	✓	✓

Annual Study Blood Draw

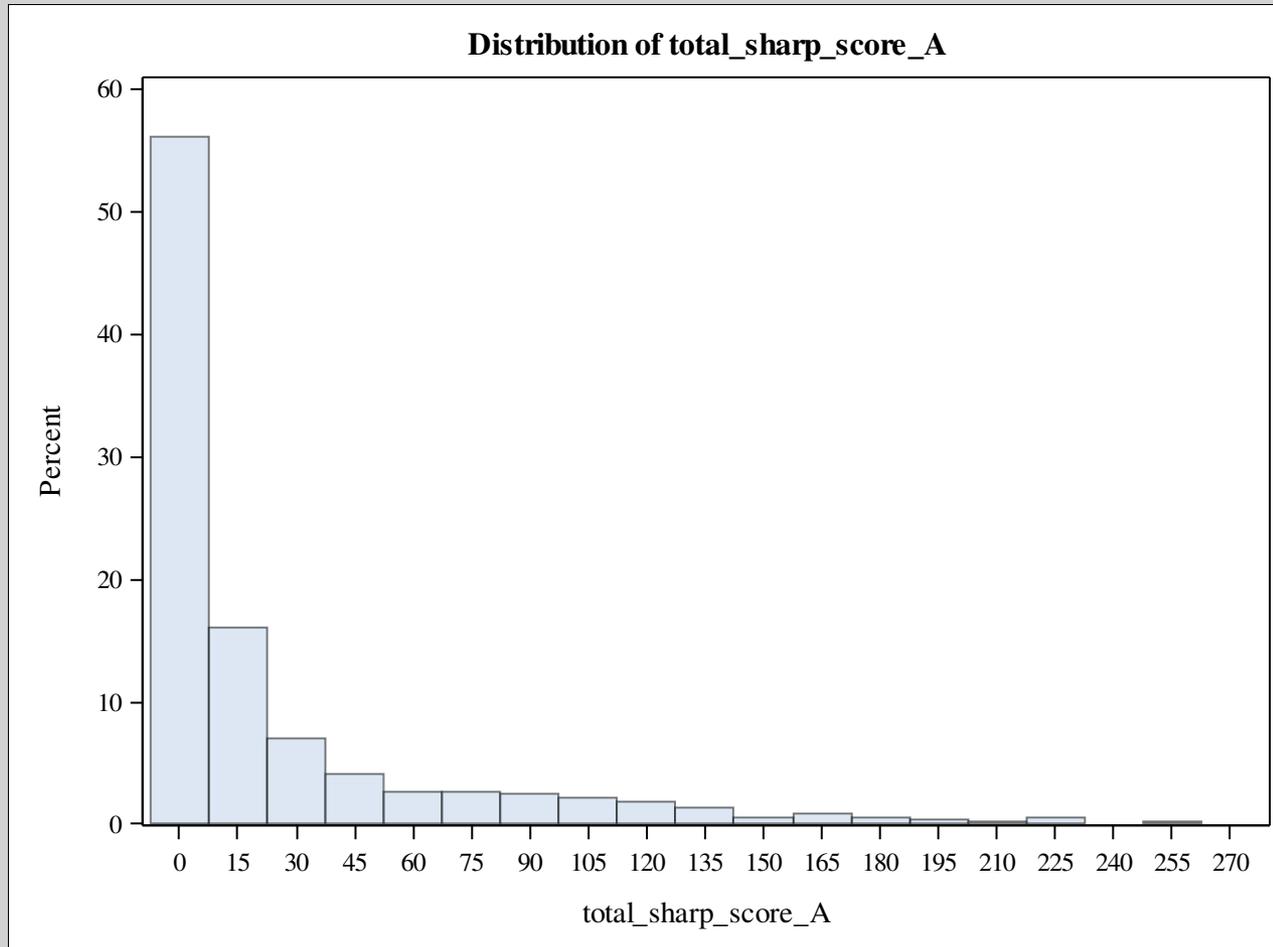
- DNA (visits 1-2 only)
- Serum
- Plasma
- Pax Gene Tubes (RNA)

Radiographs

- Collected at study baseline, year 2, year 5, year 7, year 10, year 12 and year 15
- Sharp scores are available on
 - Baseline (N = 1175)
 - Year 2 (N = 786)
 - Year 5 (N= 438)
 - Year 7 (N = 210)
 - Year 10 (N = 111)
- ICC
 - Total Sharp Score = 0.975
 - Erosions = 0.962
 - Joint Space Narrowing = 0.977

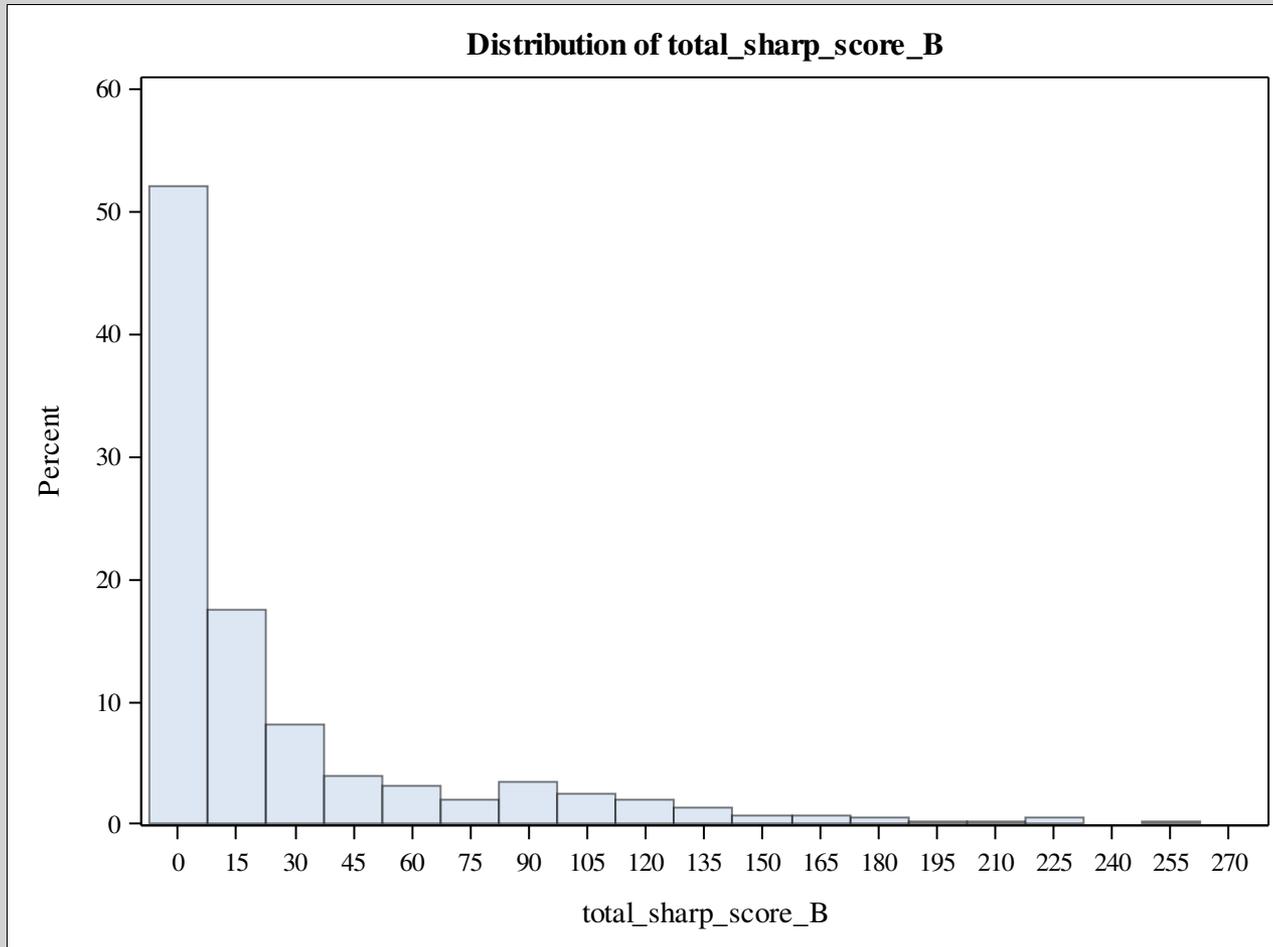
Sharp Score Data

N = 1175; Mean = 25.9 (± 45.0); Median = 5 (IQR 0-28)



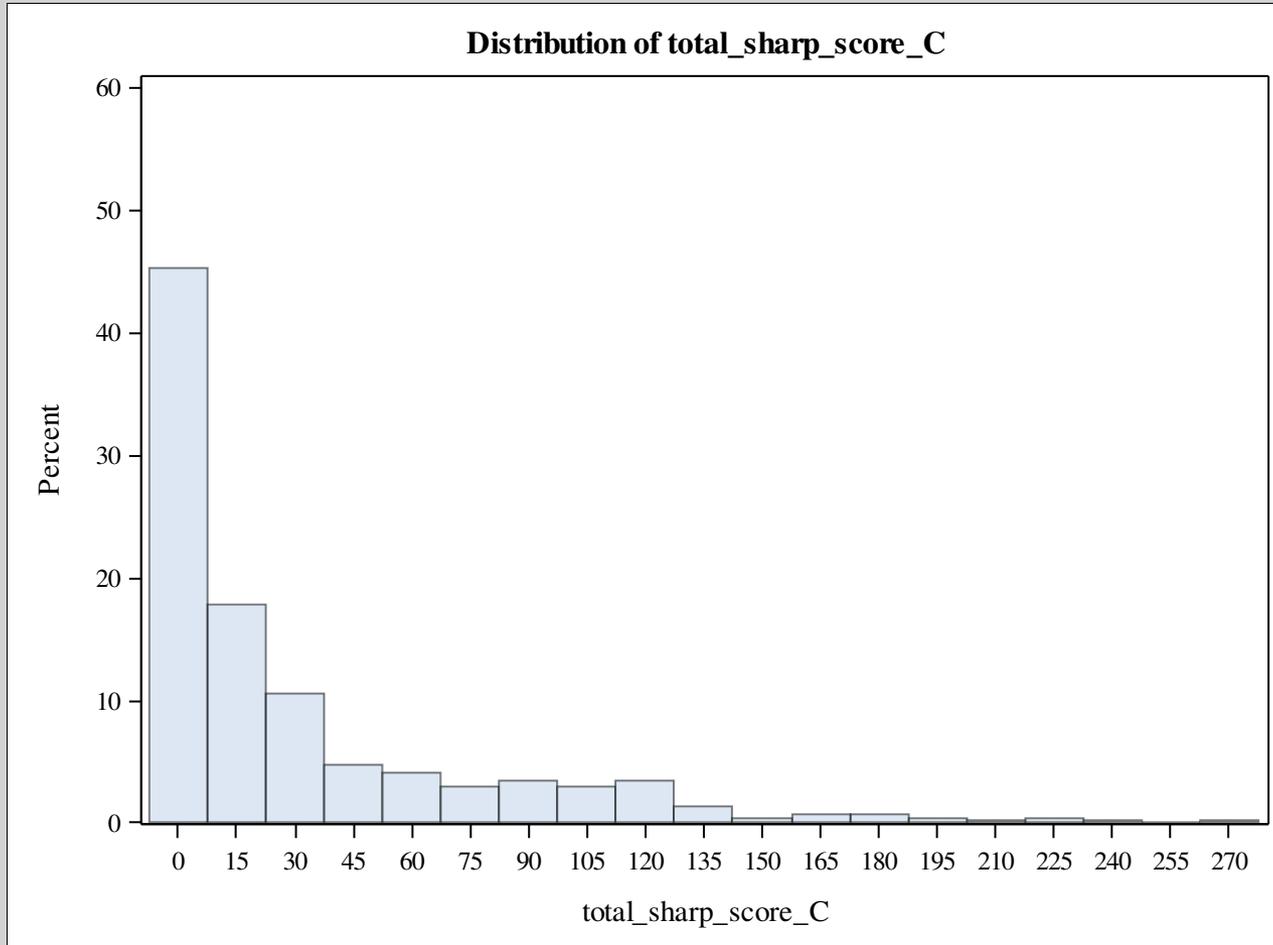
Year 2 Sharp Score Data

N = 786; Mean = 27.9 (± 46.1); Median = 6.5 (IQR 0-32)

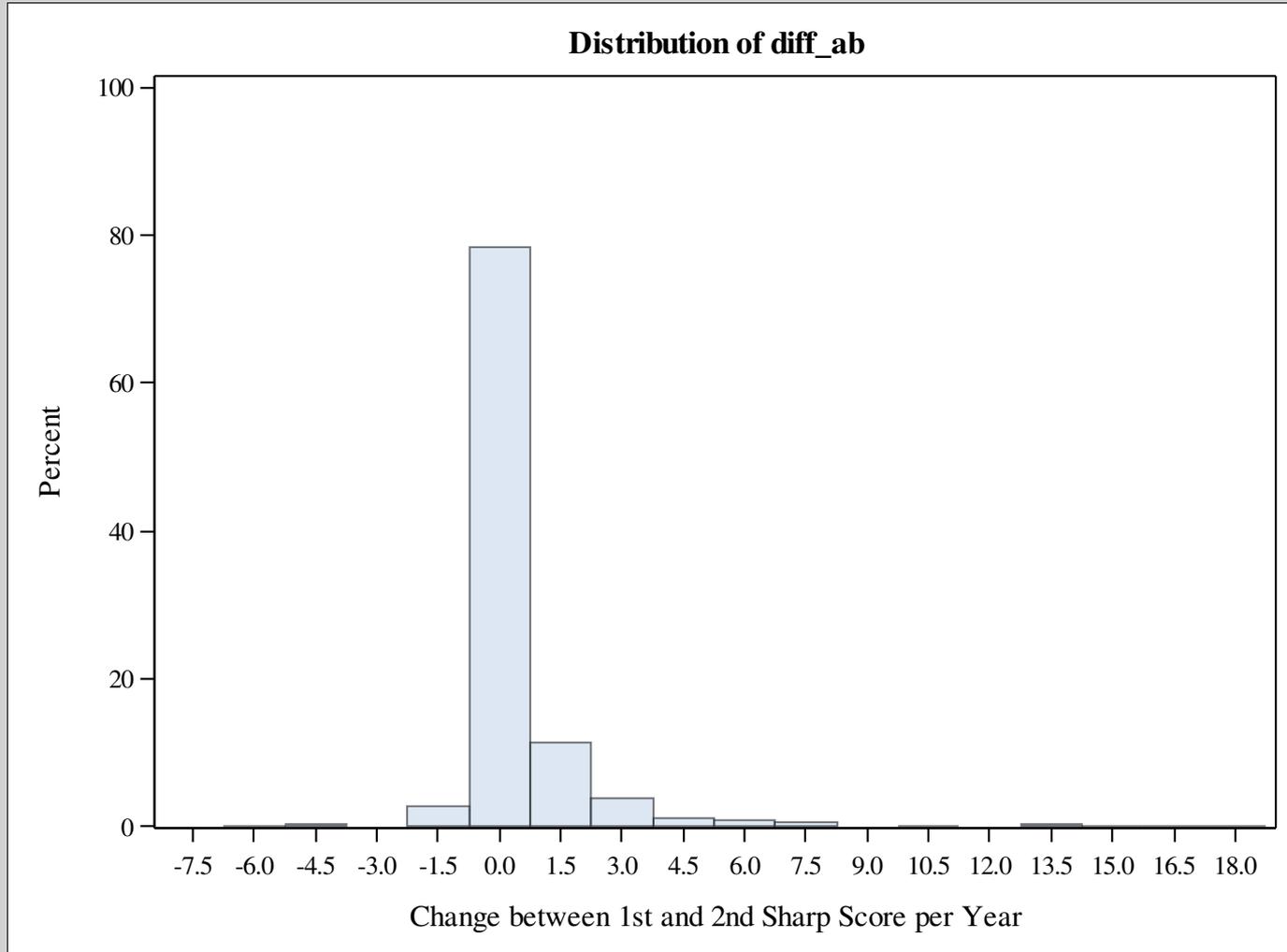


Year 5 Sharp Score Data

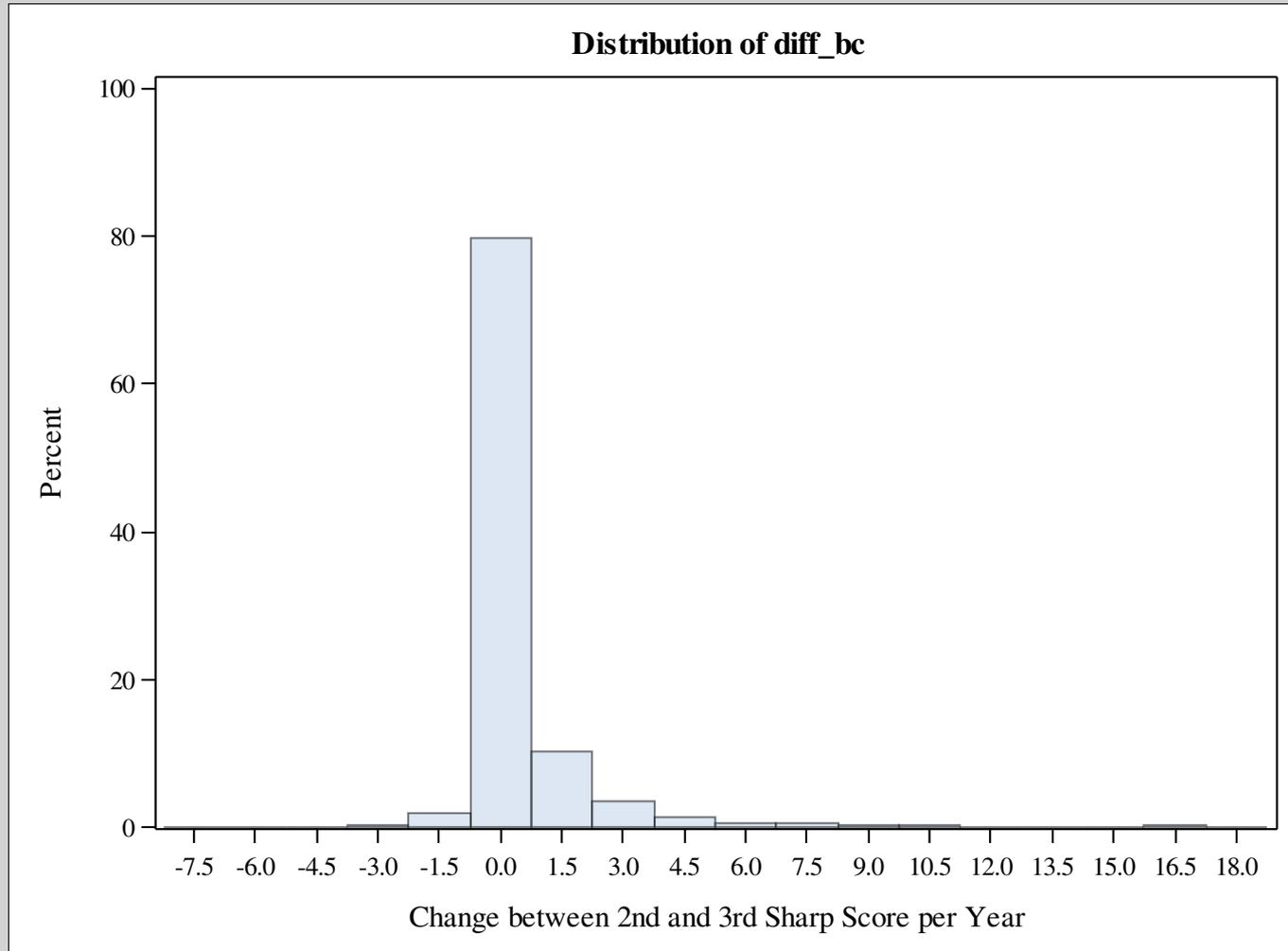
N = 438; Mean = 31.8 (± 46.7); Median = 10 (IQR 1-41)



Distribution of Change in Sharp Score between Baseline and Year 2



Distribution of Change in Sharp Score Between Year 2 and Year 5



Distribution of Annual Change in Sharp Score Between Baseline and Year 5

